

Fig. 1A Prior Art

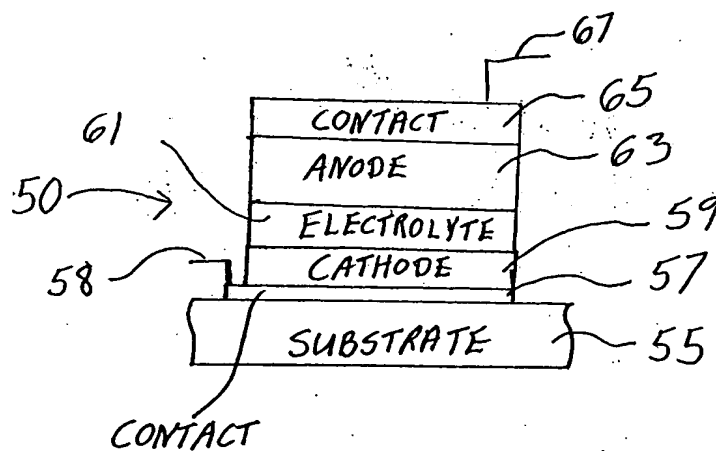


Fig. 1B

00016601-02201

A cross-sectional view of a thin film battery assembly 50C. The assembly consists of a substrate 55 with a contact 58 on its top surface. A cathode layer 57 is deposited on the contact 58. An electrolyte layer 63 is deposited on the cathode layer 57. An anode layer 65 is deposited on the electrolyte layer 63. A contact 67 is formed on the anode layer 65. A dashed line 79 indicates a cross-section through the anode layer 65, electrolyte layer 63, and cathode layer 57. A label 61C points to the cathode layer 57, and a label 61C' points to the anode layer 65.

A cross-sectional view of a battery assembly 500. The assembly is built on a substrate 55. From bottom to top, the layers are: a cathode 59, an electrolyte 61, an anode 63, an electrode contact 65, an electrode 67, an electrolyte/dielectric layer 71, and an electroplate 73. A dashed line 75 indicates the top surface of the electroplate. A lead 76 is connected to the top of the electroplate. A dashed line 77 indicates the top surface of the electrode contact. A dashed line 79 indicates the top surface of the electrode. A dashed line 80 indicates the top surface of the electrolyte/dielectric layer. A dashed line 81 indicates the top surface of the anode. A dashed line 82 indicates the top surface of the cathode. A dashed line 83 indicates the top surface of the substrate.

Fig. 1D

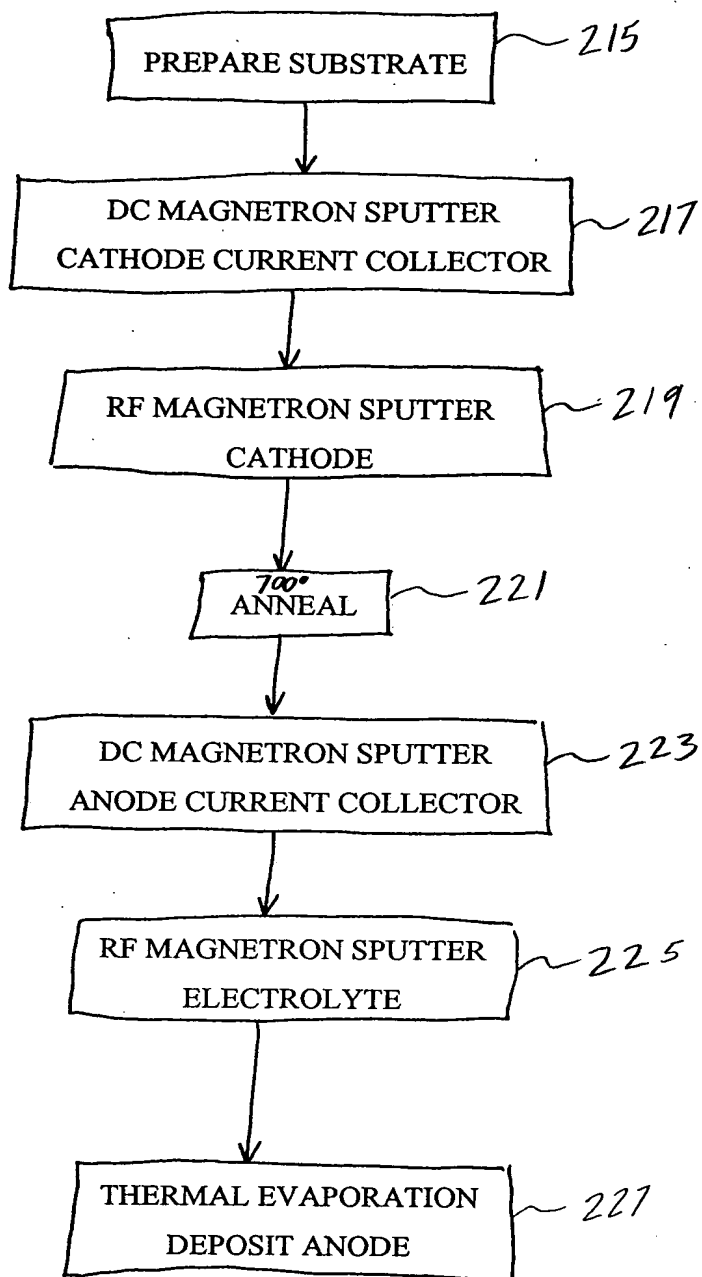


Fig. 2A Prior Art

```
graph TD; 251[PROVIDE SUBSTRATE] --> 253[DEPOSIT CATHODE CONTACT]; 253 --> 255[DEPOSIT CATHODE FILM USING SECONDARY SOURCE OF ENERGIZED MATERIAL]; 255 --> 257[DEPOSIT ELECTROLYTE FILM]; 257 --> 259[DEPOSIT ANODE FILM]; 259 --> 261[DEPOSIT ANODE CONTACT]; 261 --> 263[POST ENERGY STORAGE DEVICE PROCESSING];
```

251 PROVIDE SUBSTRATE

253 DEPOSIT CATHODE CONTACT

255 DEPOSIT CATHODE FILM USING SECONDARY SOURCE OF ENERGIZED MATERIAL

257 DEPOSIT ELECTROLYTE FILM

259 DEPOSIT ANODE FILM

261 DEPOSIT ANODE CONTACT

263 POST ENERGY STORAGE DEVICE PROCESSING

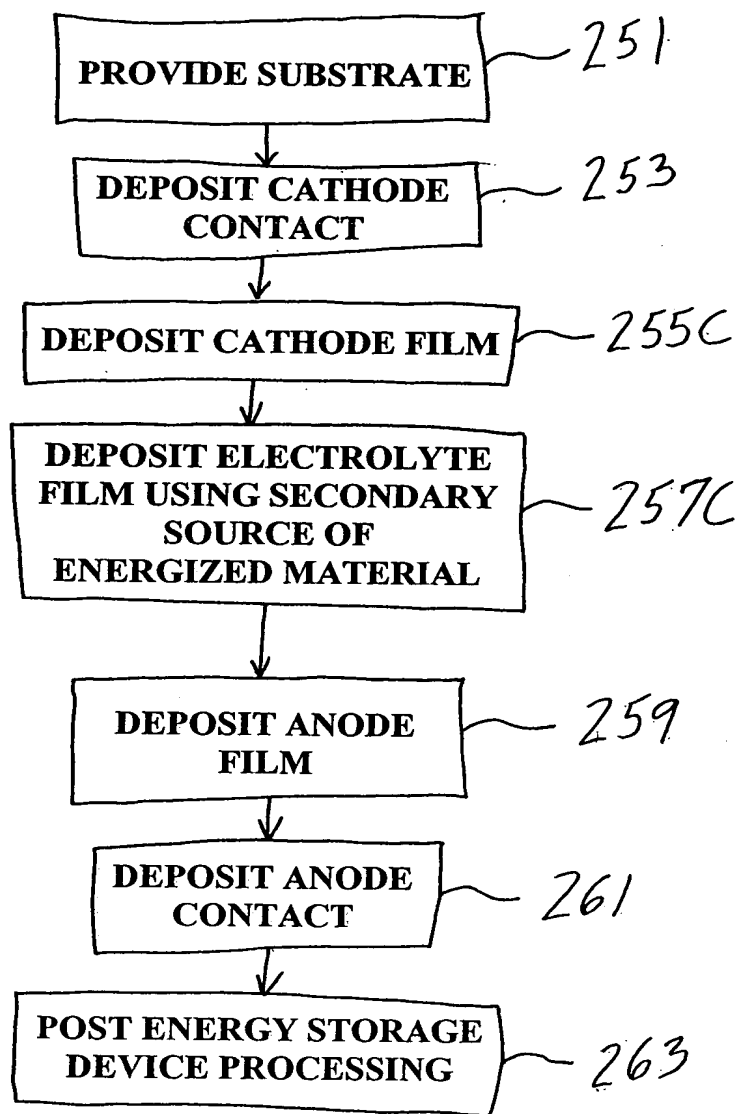


FIGURE 2C

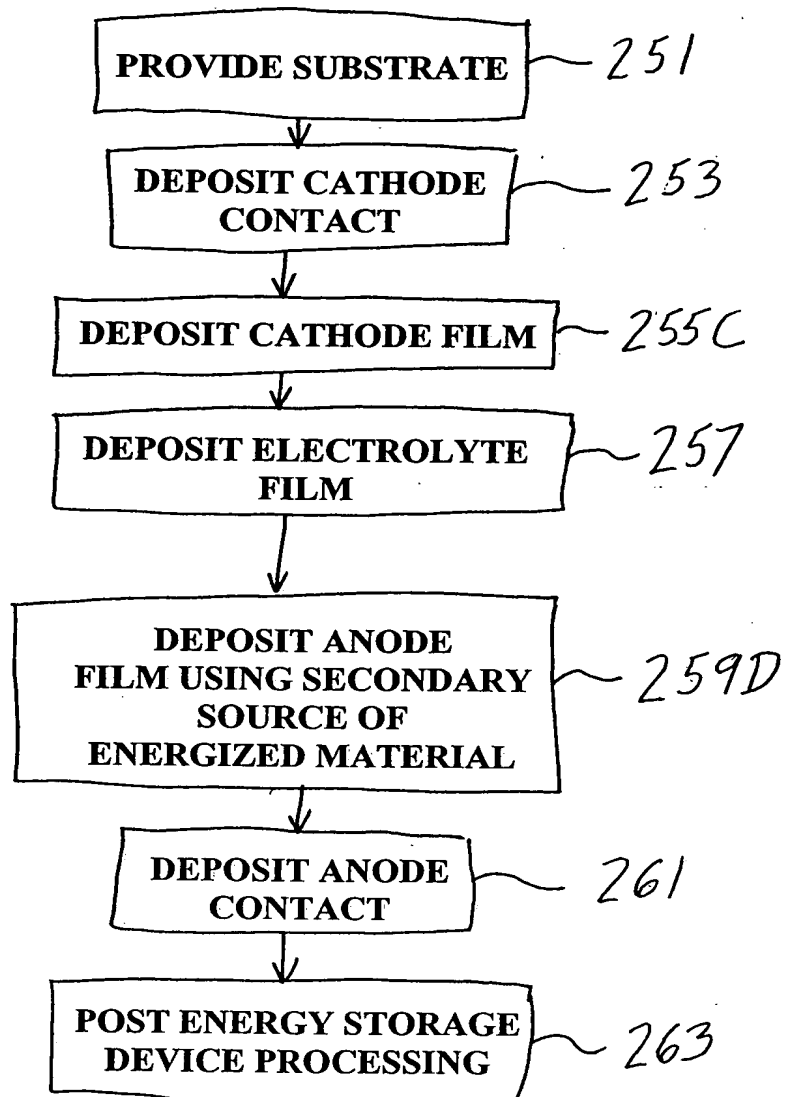


FIGURE 2D

FIG. 3A

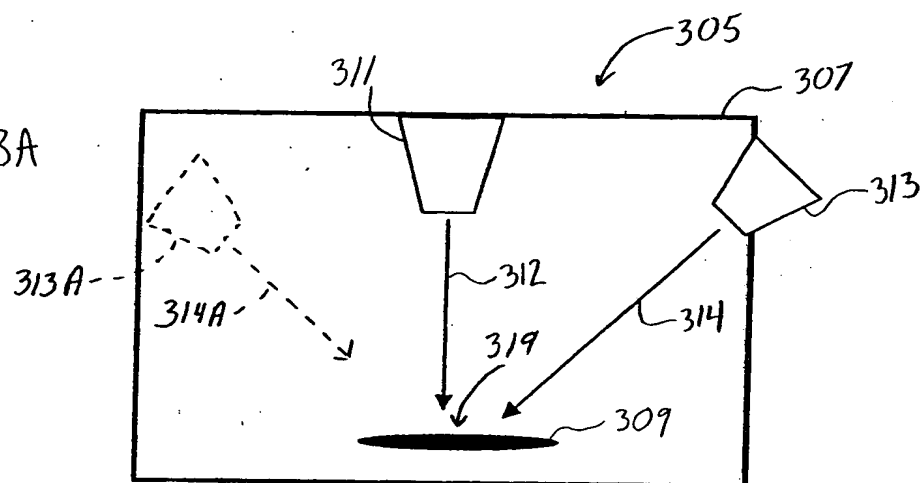


FIG. 3B

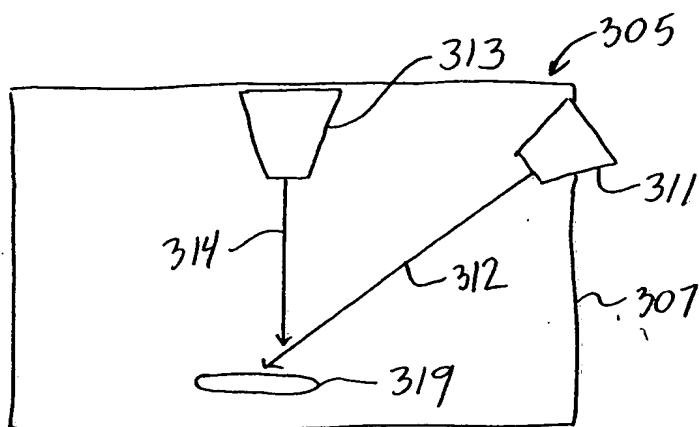


FIG. 4

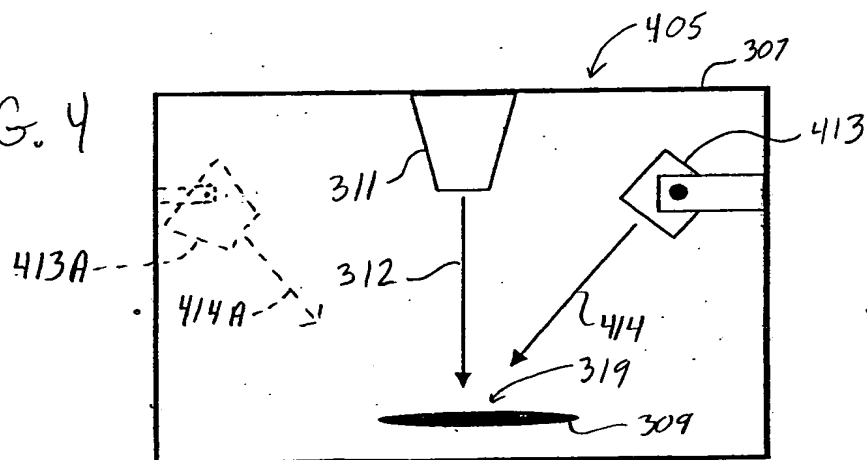


FIG. 5A

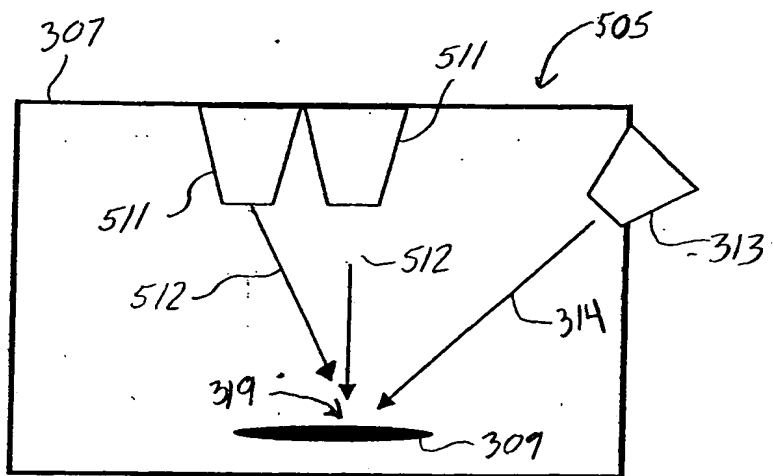


FIG. 5B

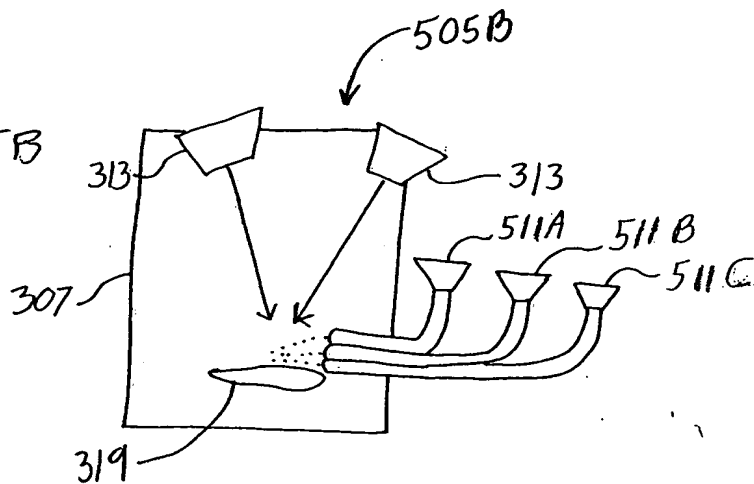


FIG. 6

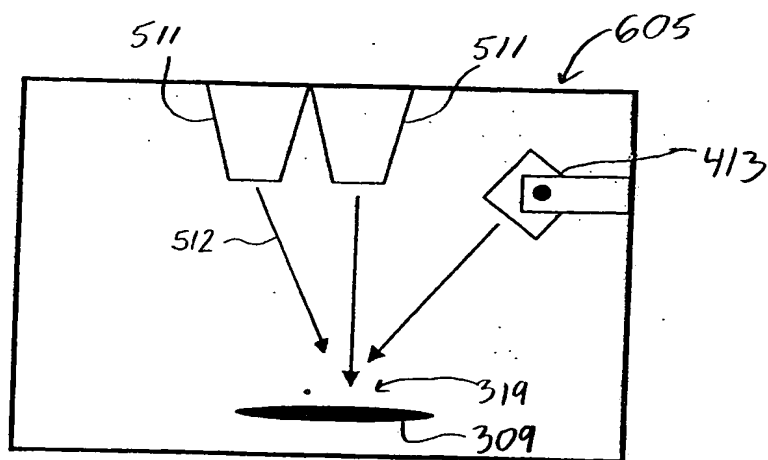


Fig. 7

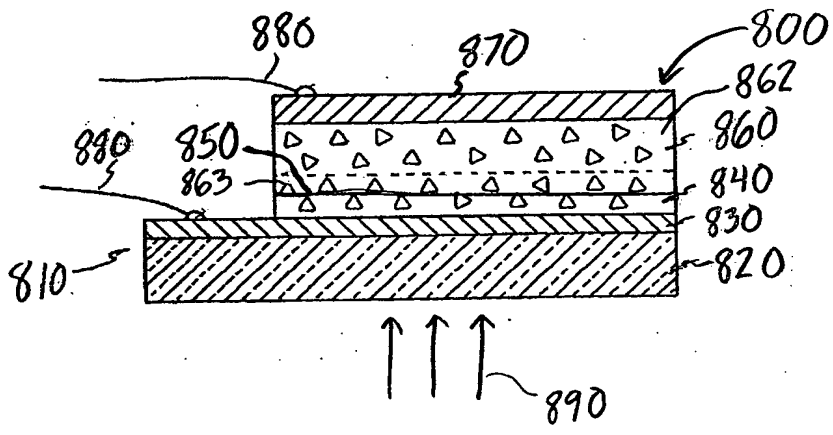
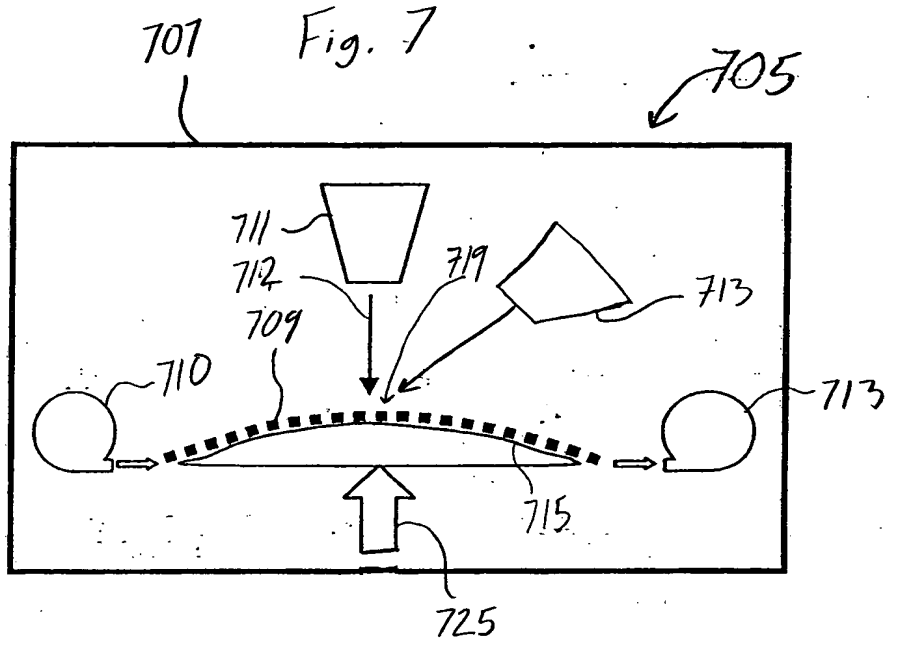
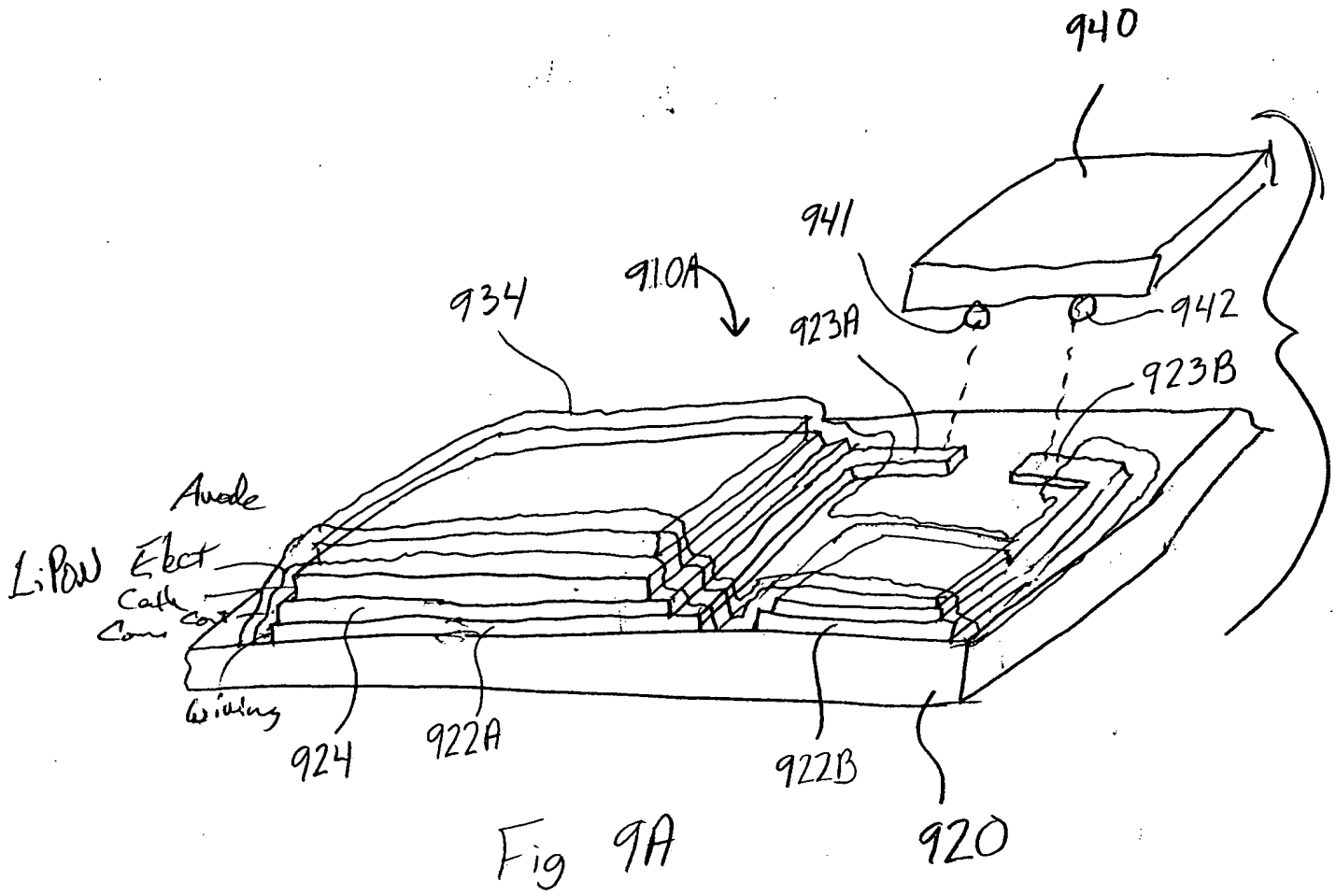


Fig. 8



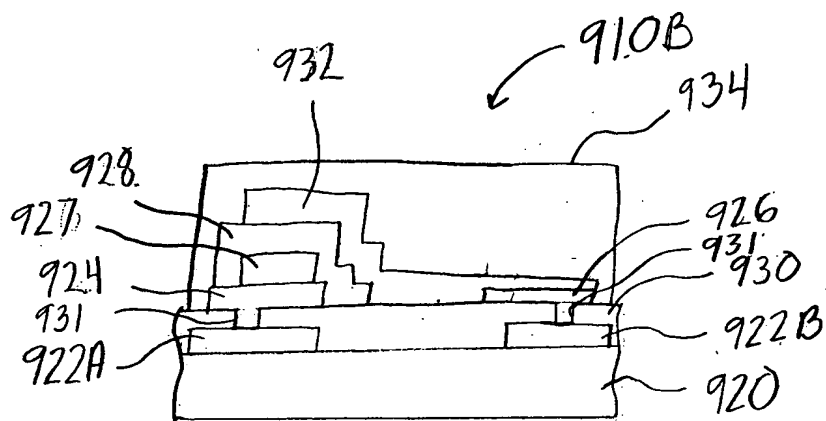


Fig. 9B

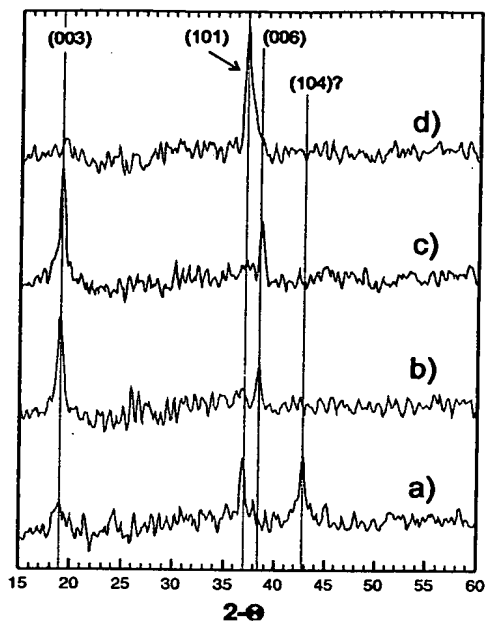


Figure 10

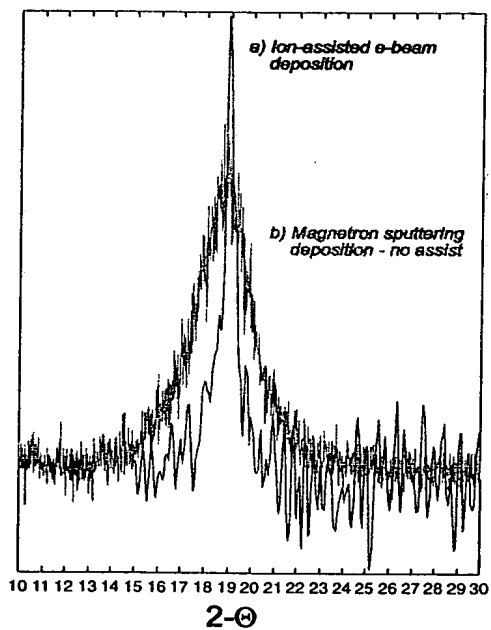


Figure 11

Figure 12A



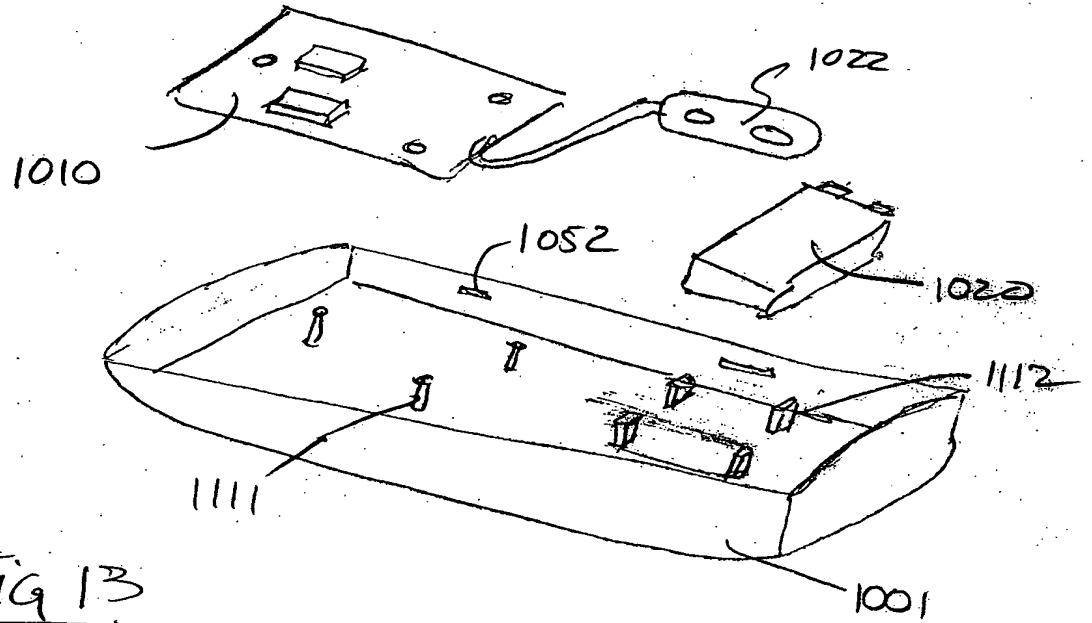
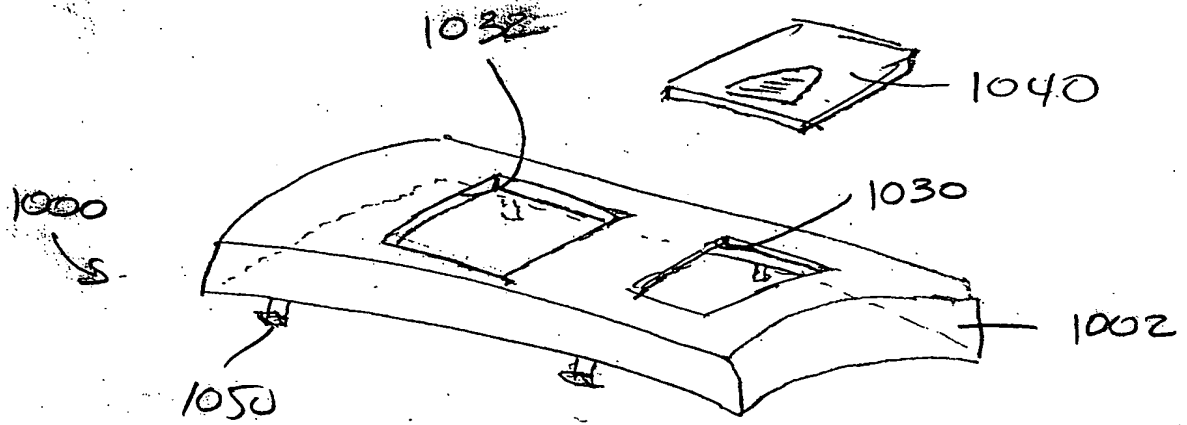


Fig 13

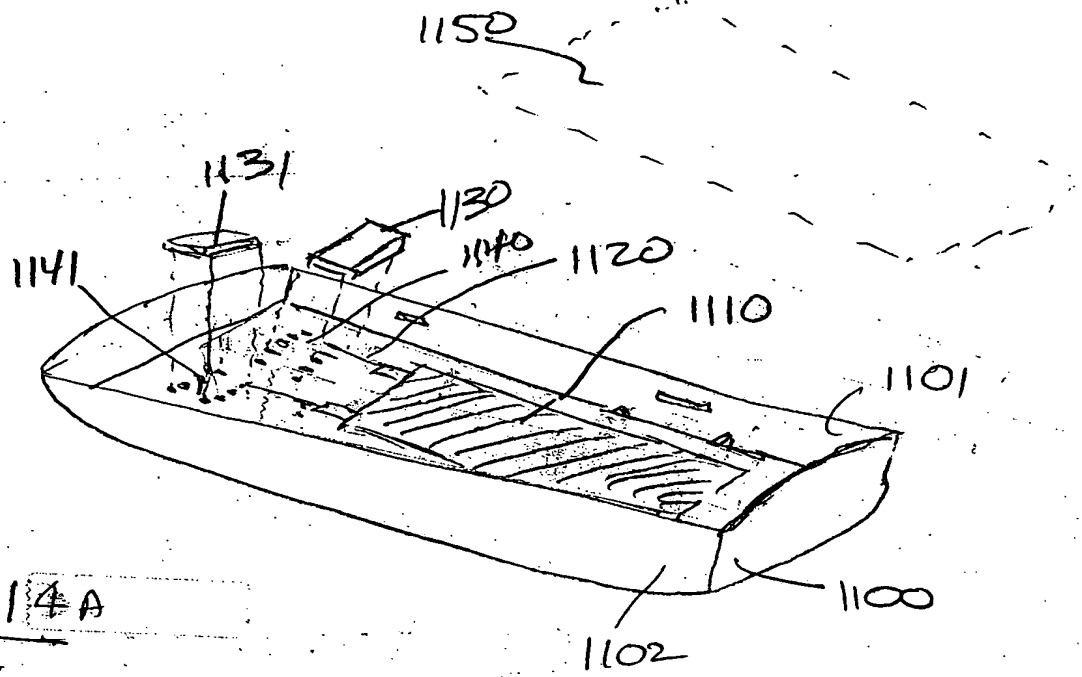


FIG 14 A

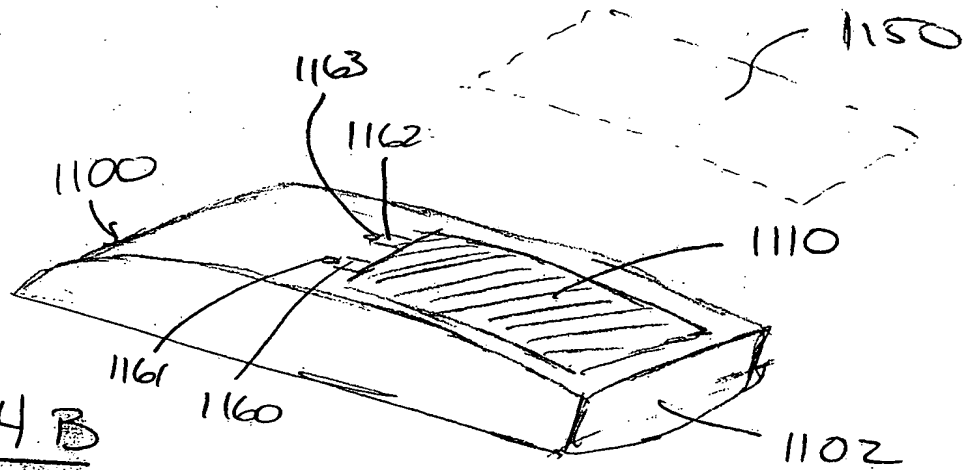
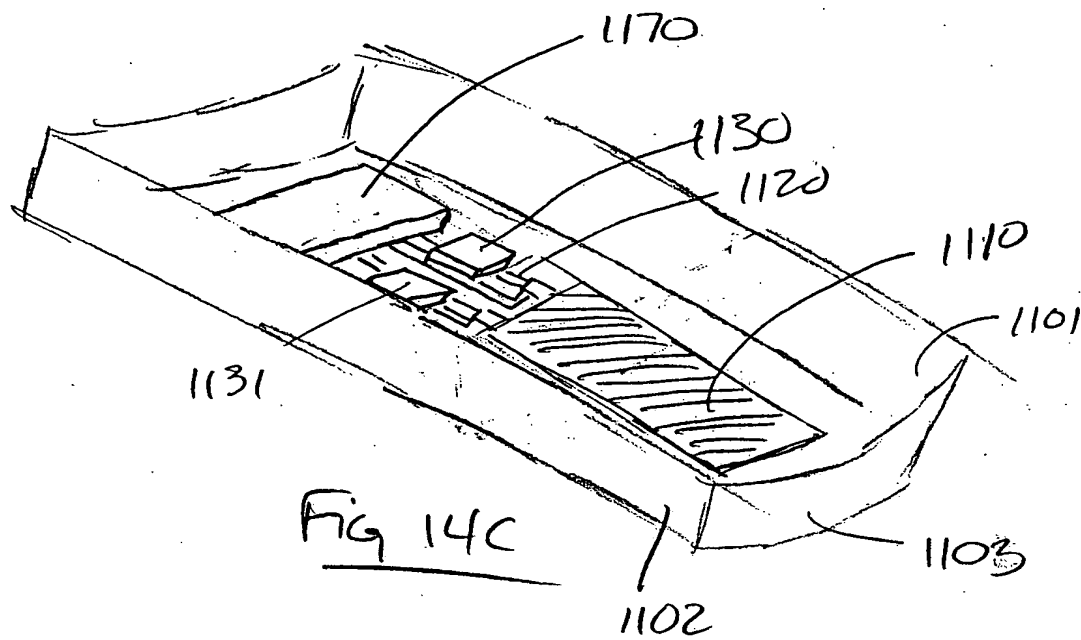


FIG 14 B



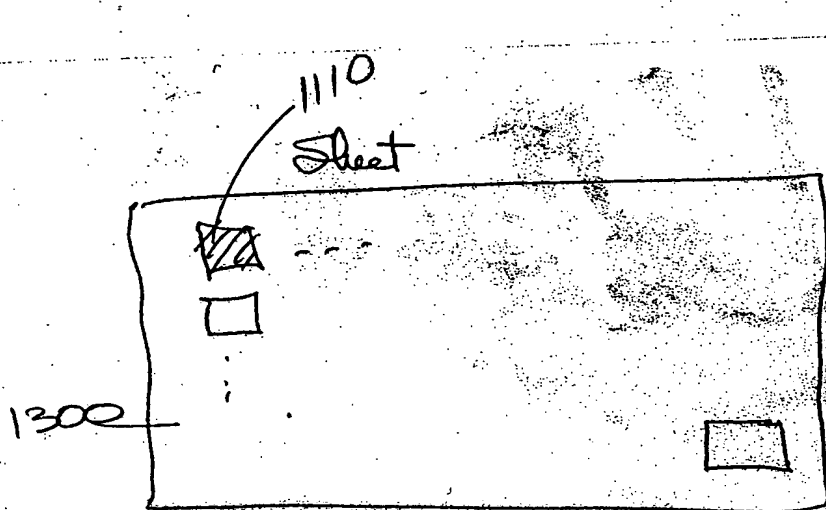


Fig 15A

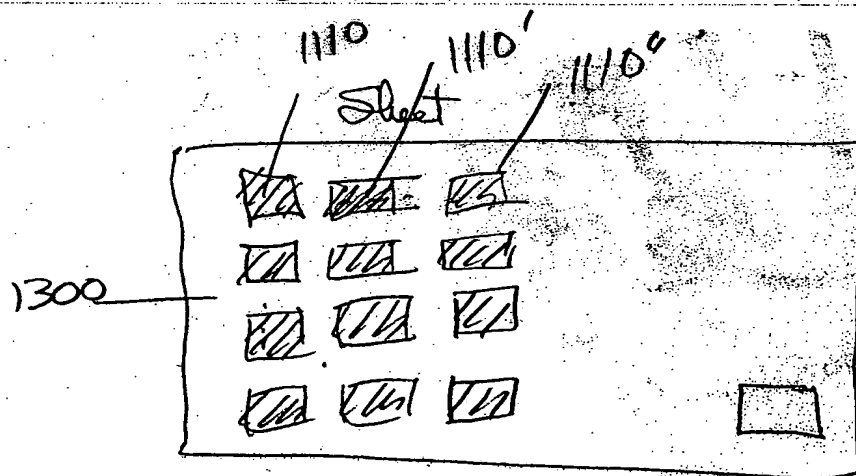
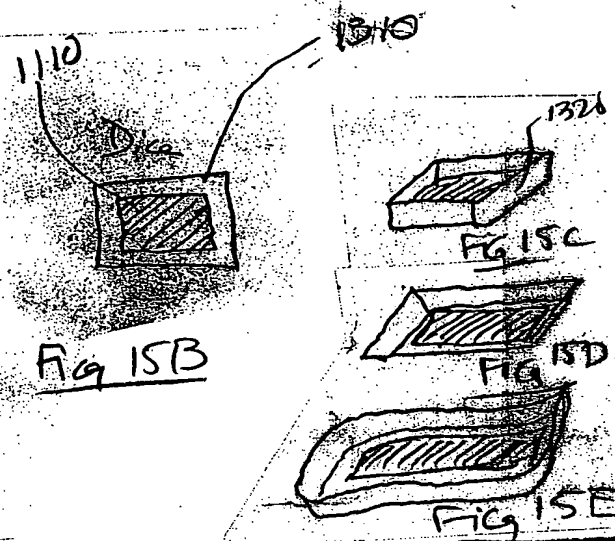


Fig 15F

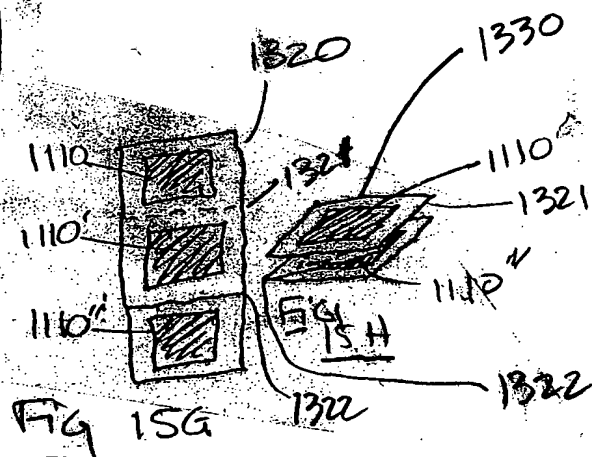


Fig 15G

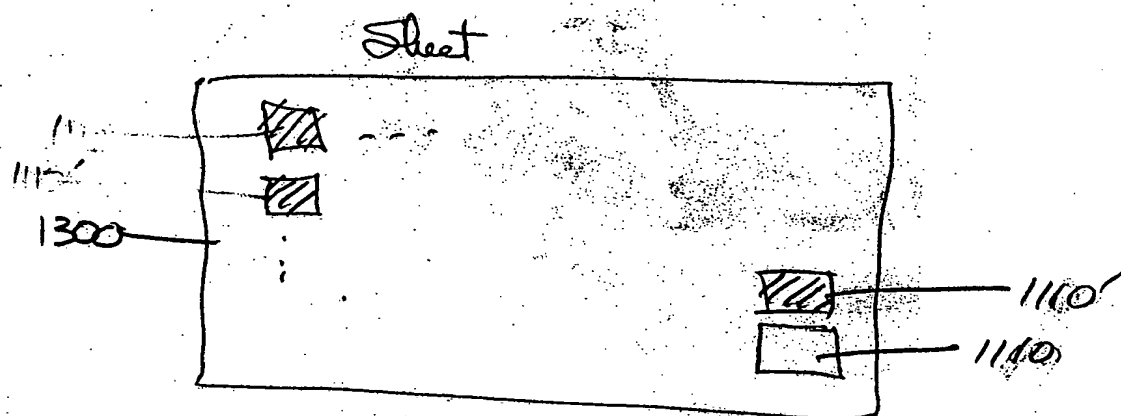


FIG 15I

Or egg carton vacuum form
Onto form

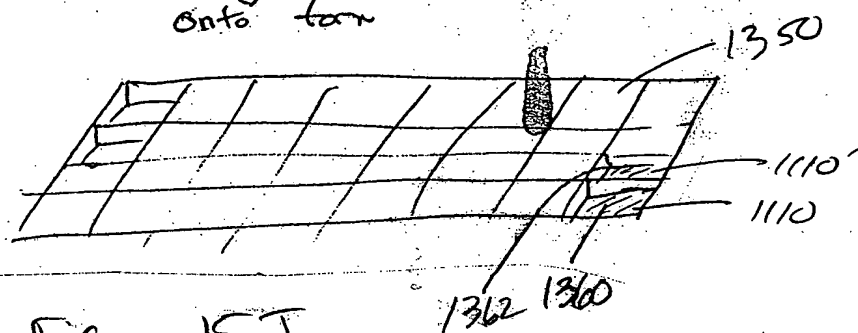


FIG. 15J

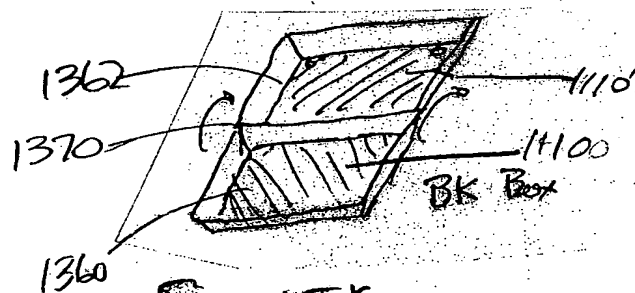
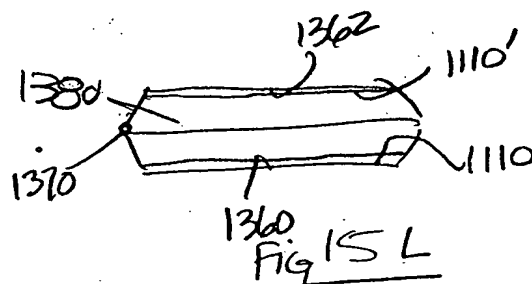
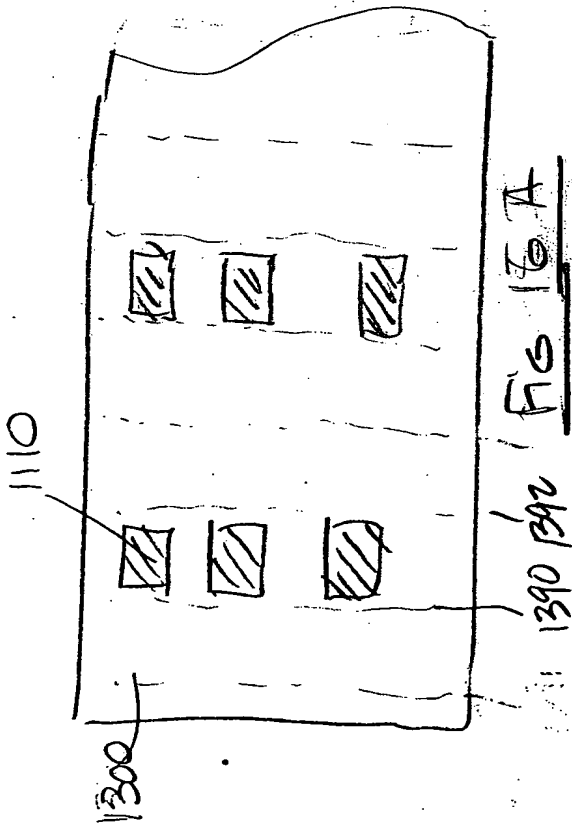


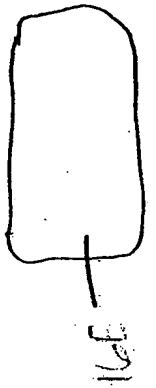
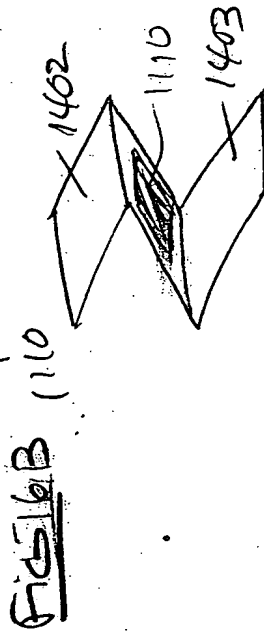
Fig 15K

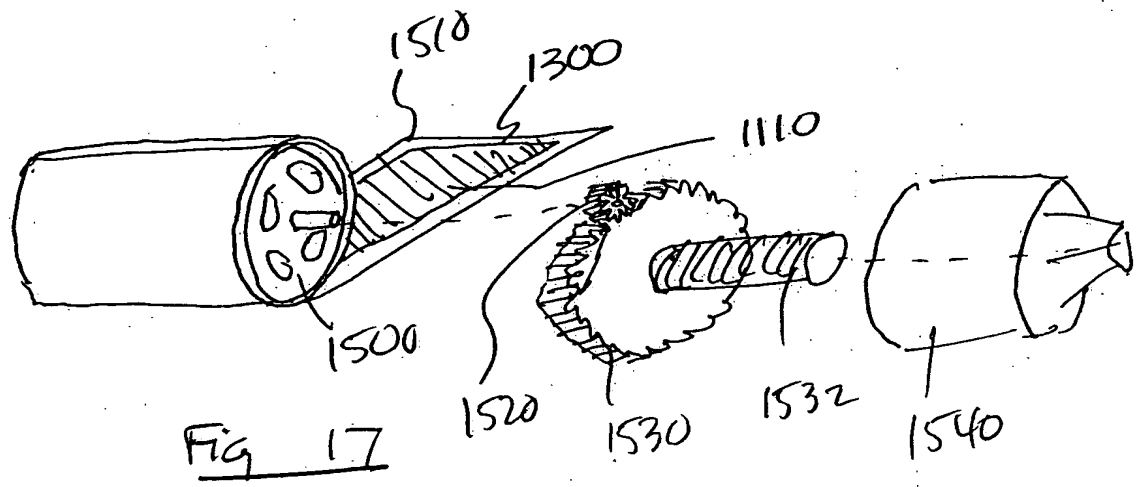


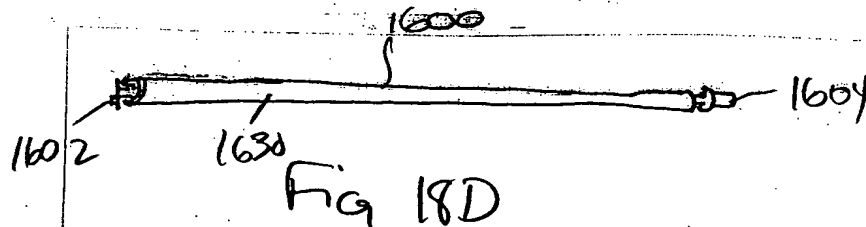
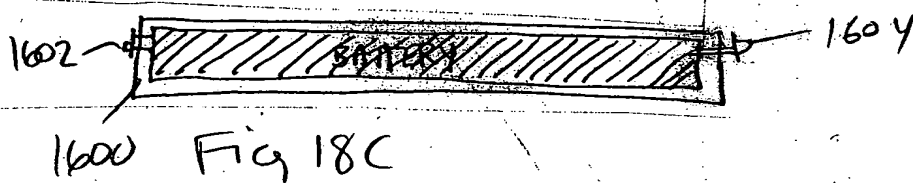
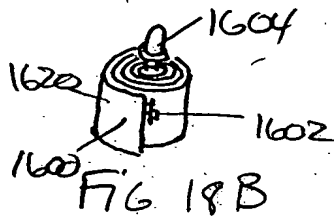
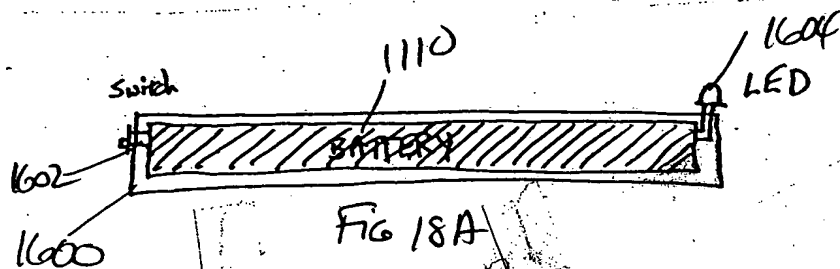
1360
Fig 15 L



Smoo Card







09815603-02201

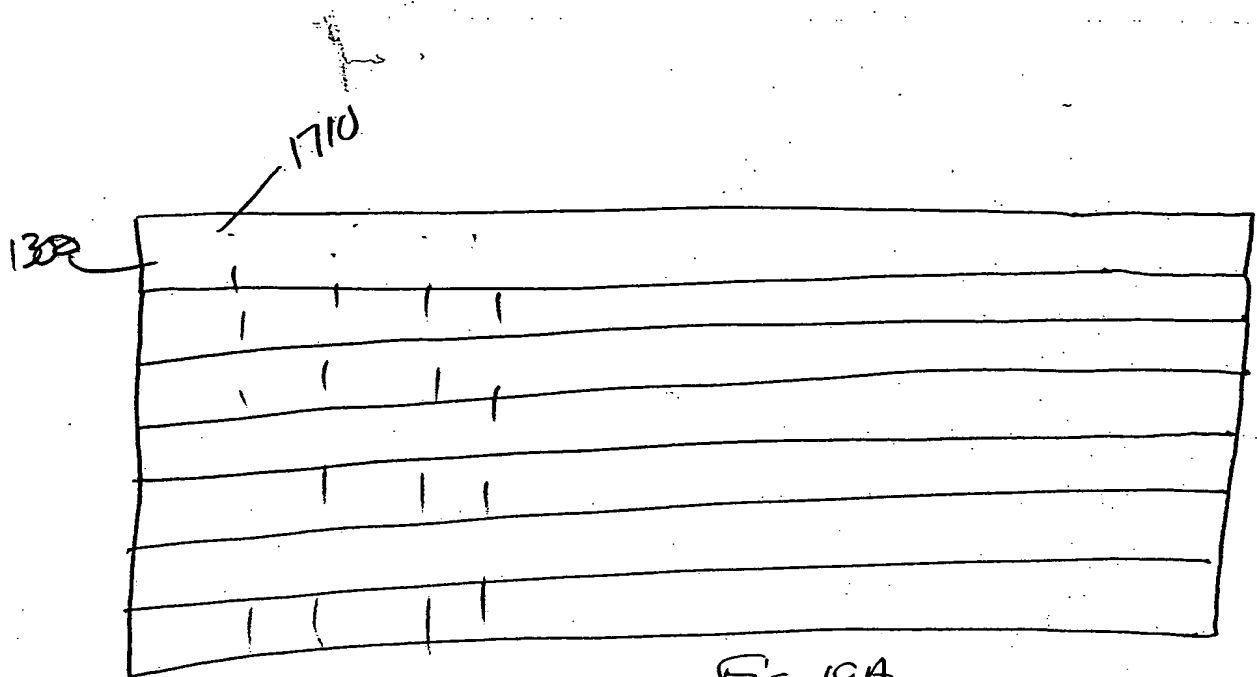


Fig 19A

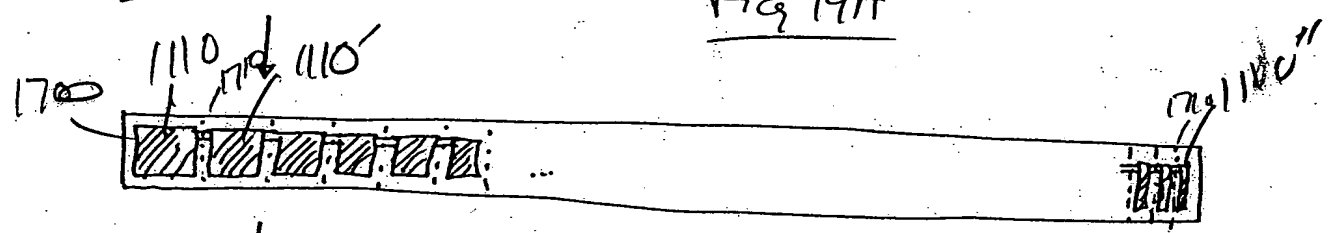


Fig 19B

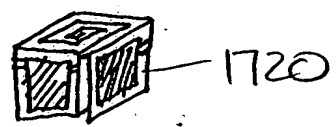


Fig 19C

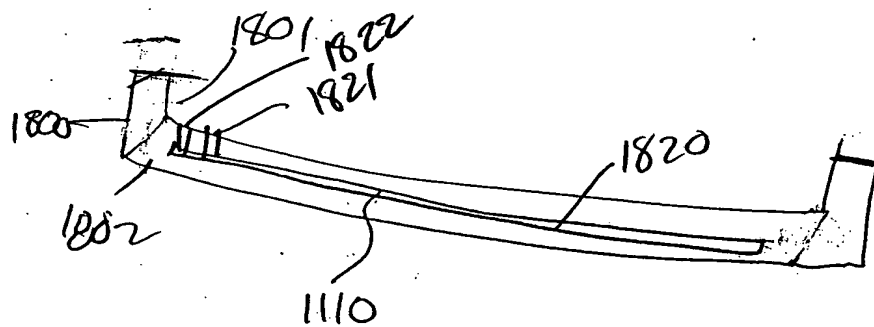


Fig 20

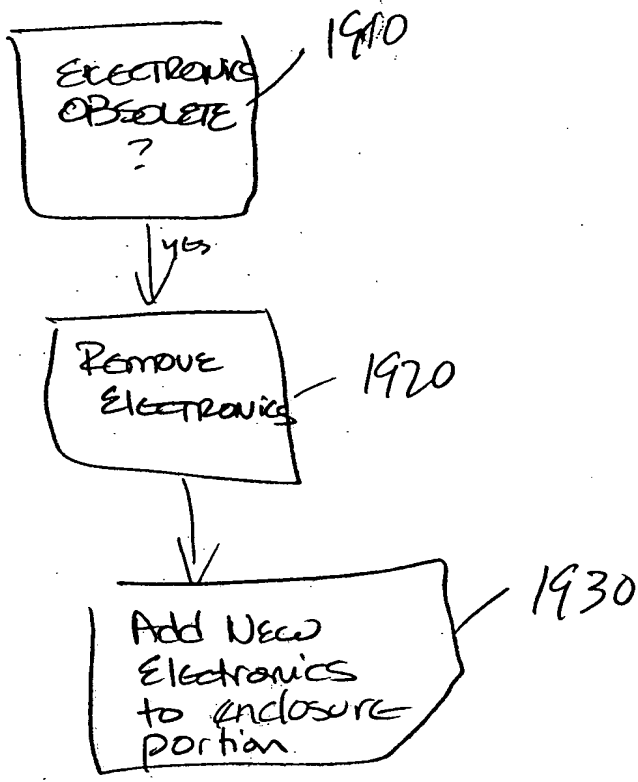


Fig 21A

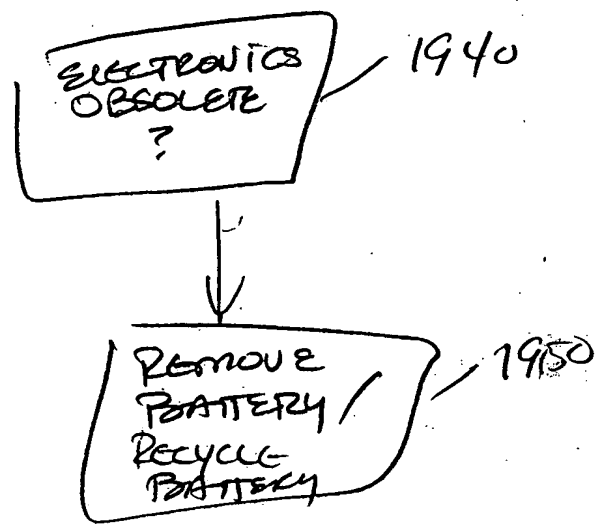


Fig 21B

09416503-032304

FIG. 22A

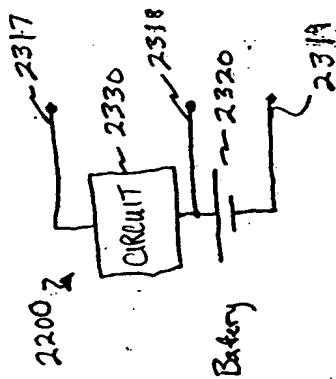


FIG. 22D

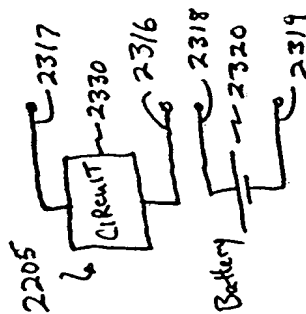


FIG. 22B

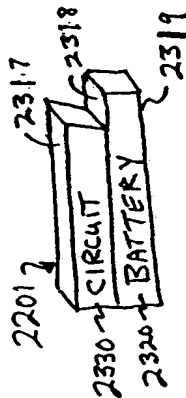


FIG. 22E

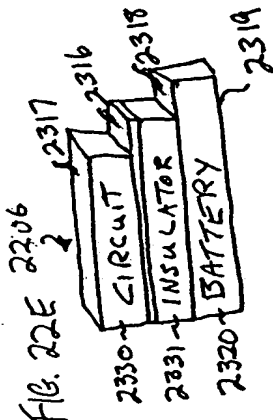


FIG. 22C

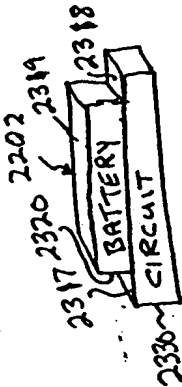


FIG. 22F

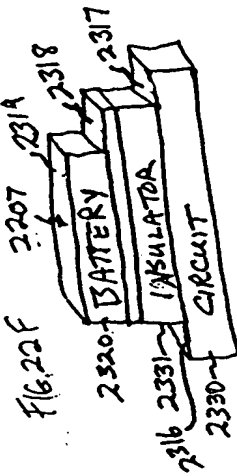


FIG. 22H

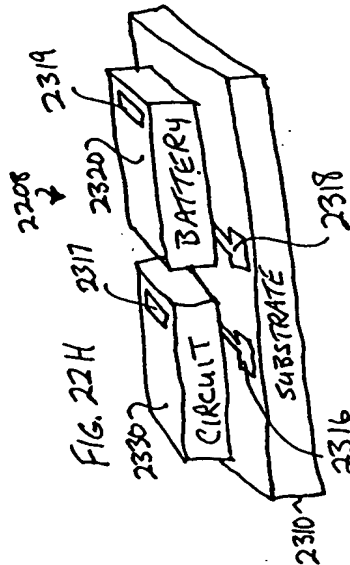
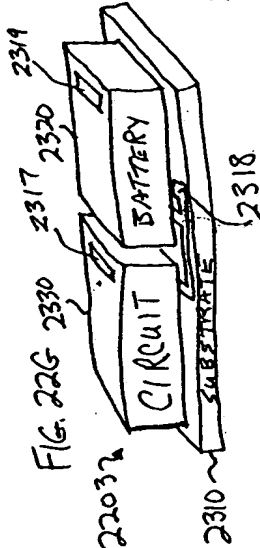
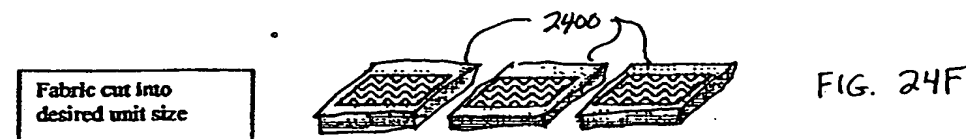
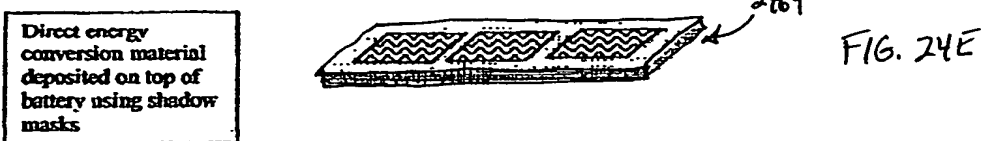
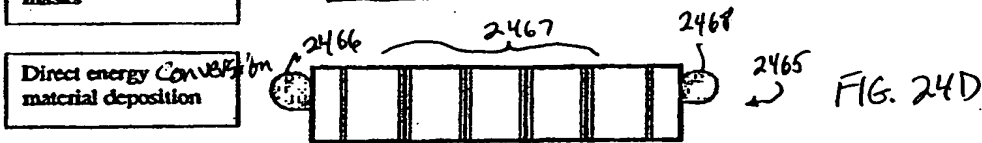
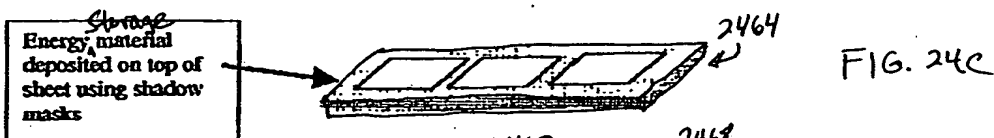
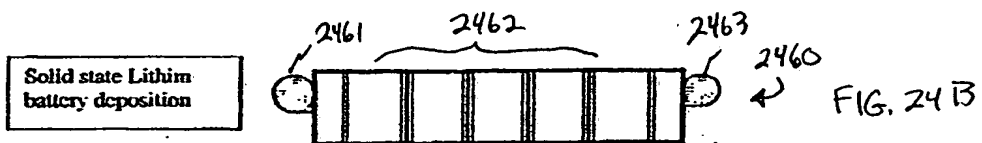
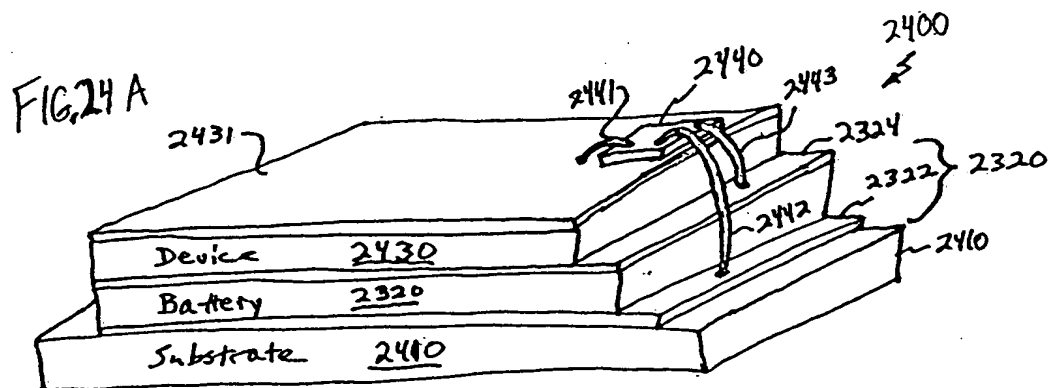
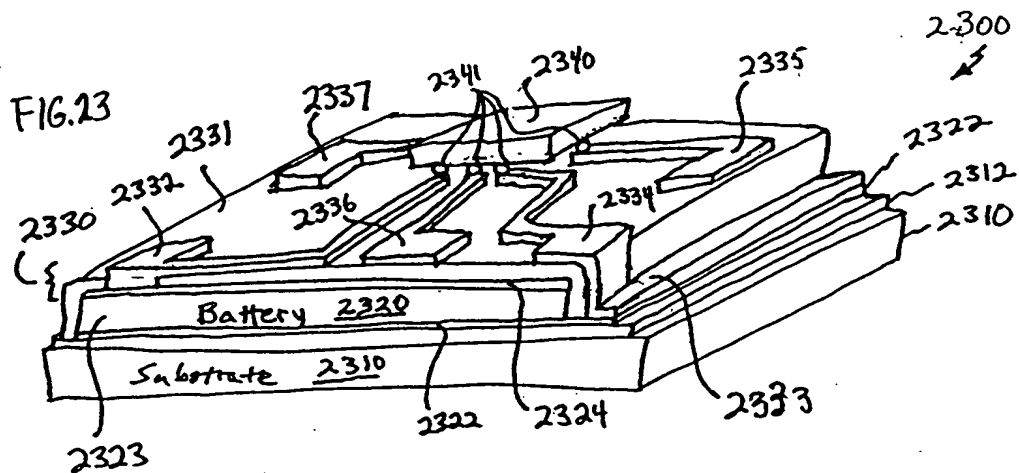


FIG. 22G





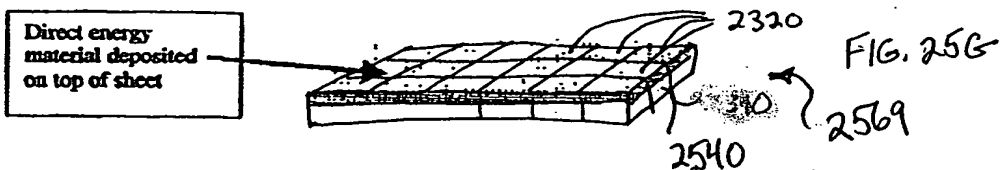
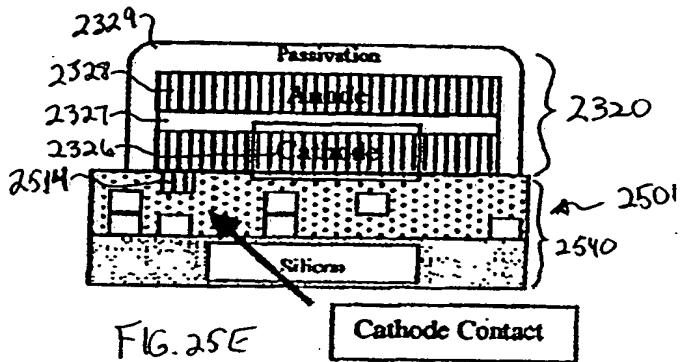
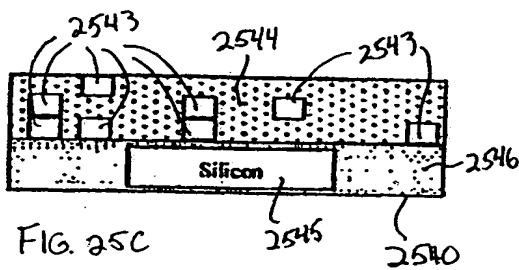
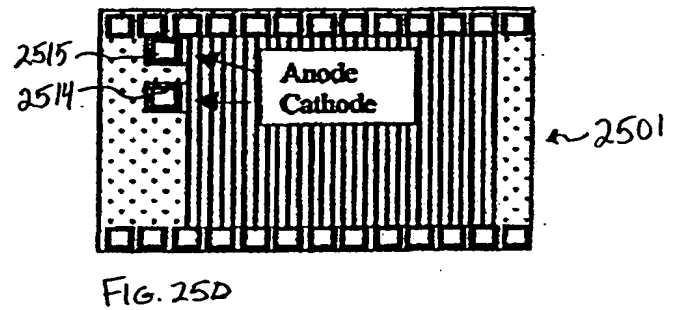
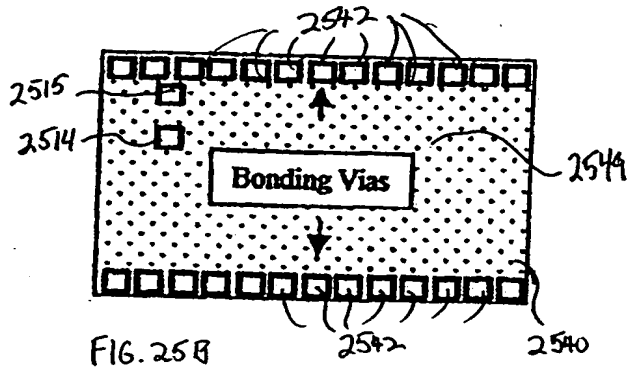
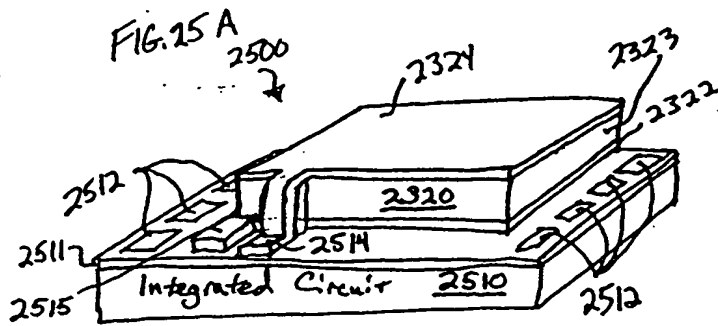


FIG. 26A

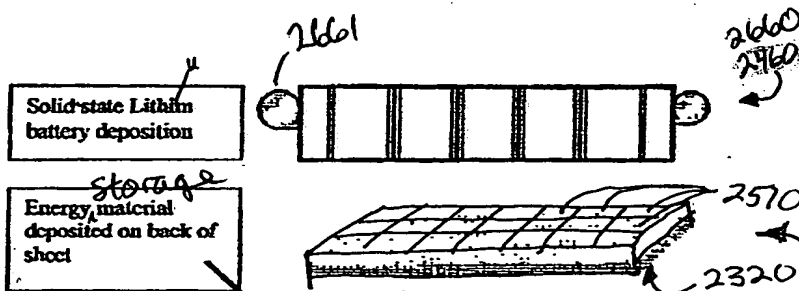
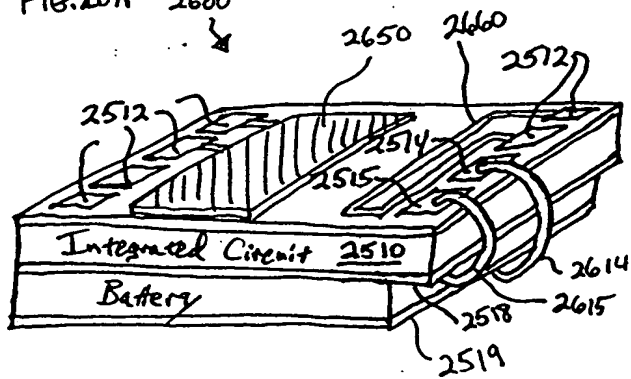


FIG. 26B

FIG. 26C

Fabric cut into
desired unit size

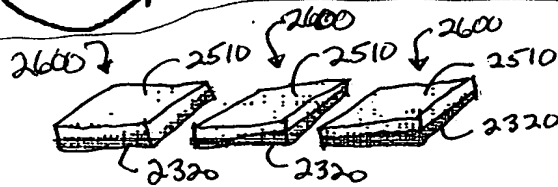


FIG. 26D

Energy conversion
material wired to
energy storage
material

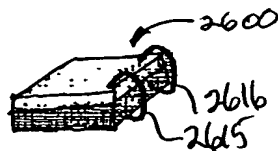


FIG. 26E

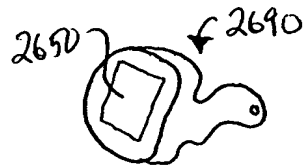


FIG. 26F

FIG. 27A

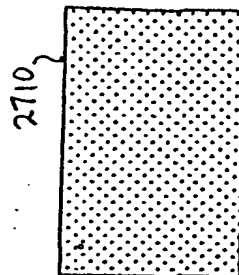


FIG. 27B

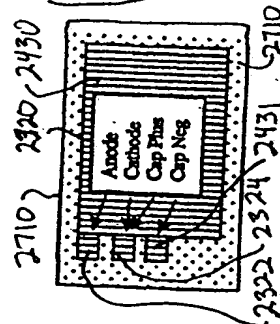


FIG. 27C

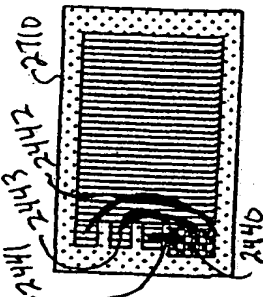


FIG. 27D

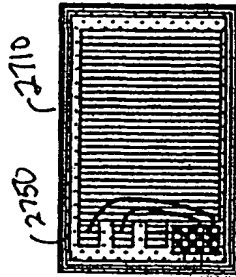


FIG. 27E

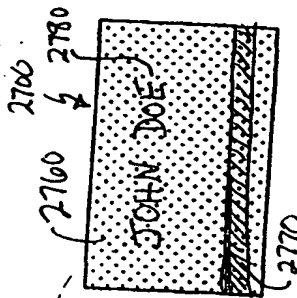


FIG. 27F

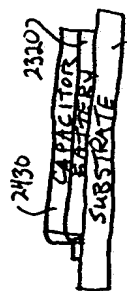


FIG. 27G

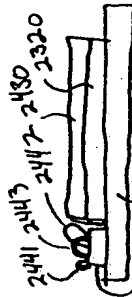


FIG. 27H

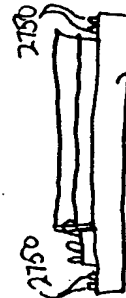


FIG. 27I

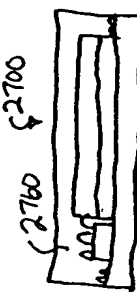


FIG. 27J

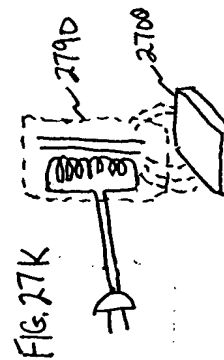


FIG. 27K

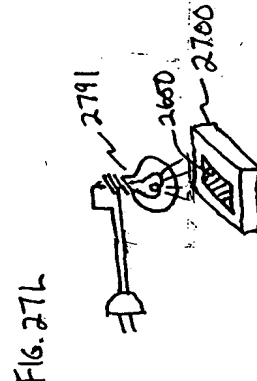
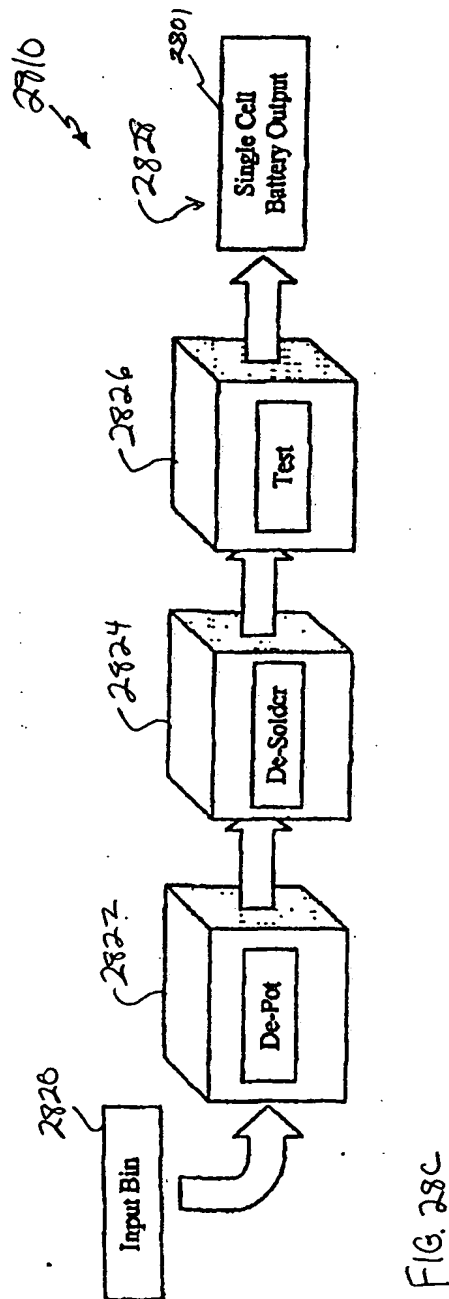
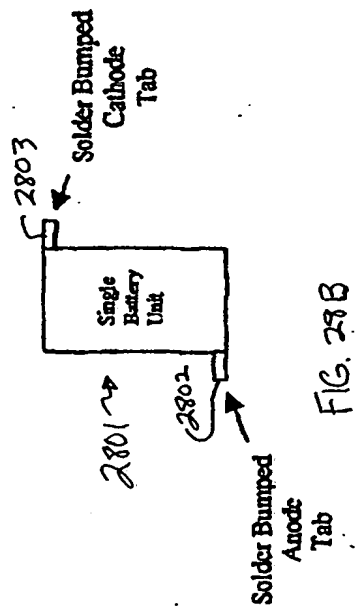
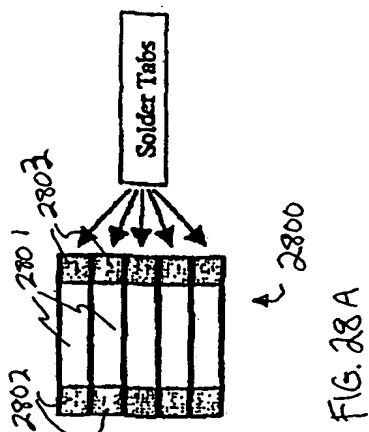


FIG. 27L



FIG. 27M



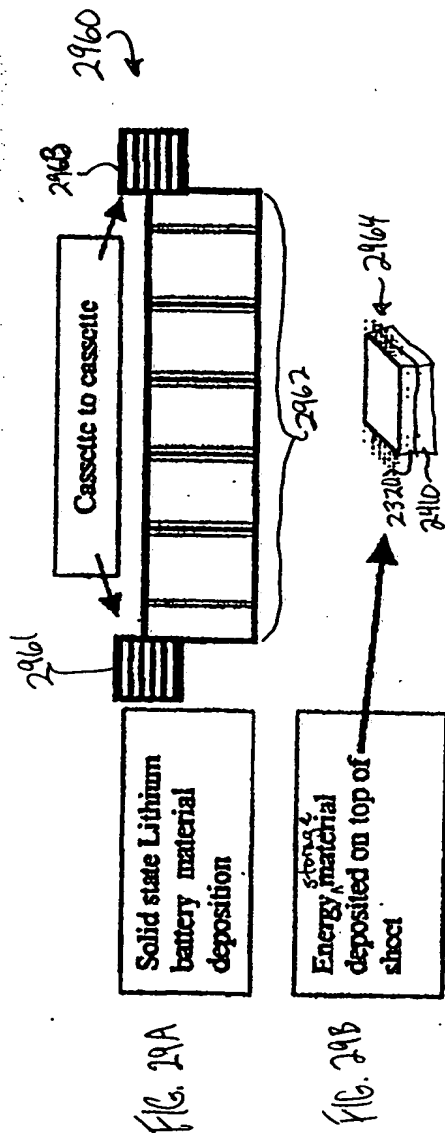


FIG. 29B

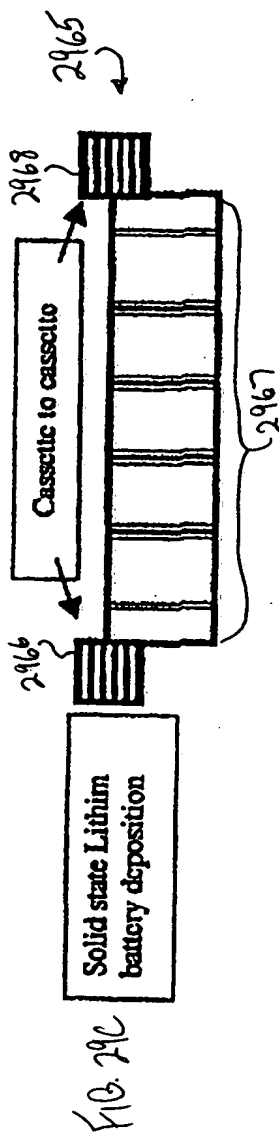


FIG. 29C

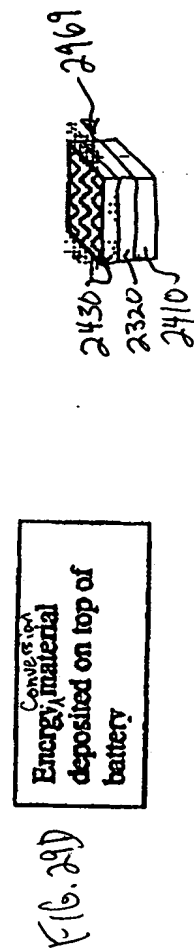
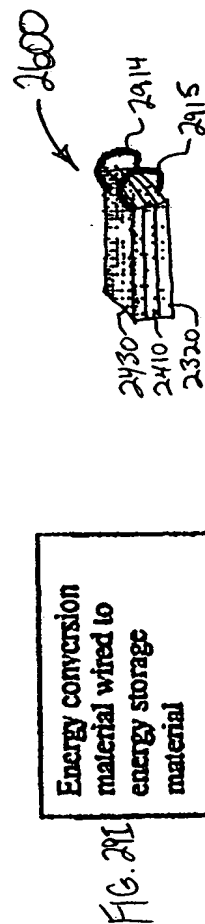
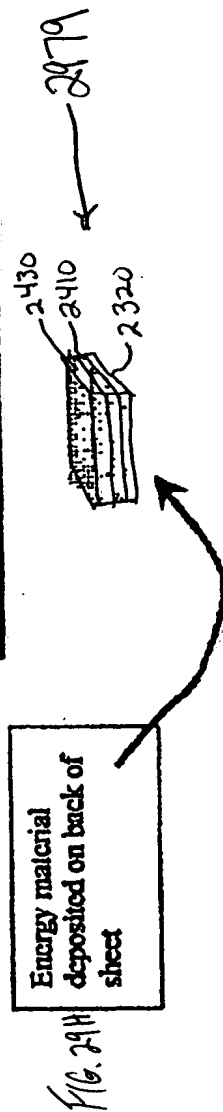
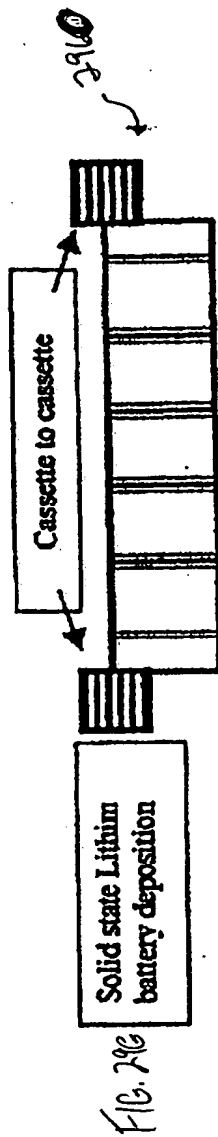
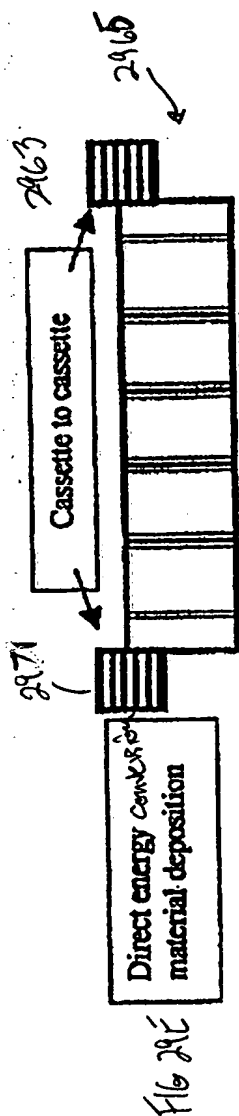


FIG. 29D



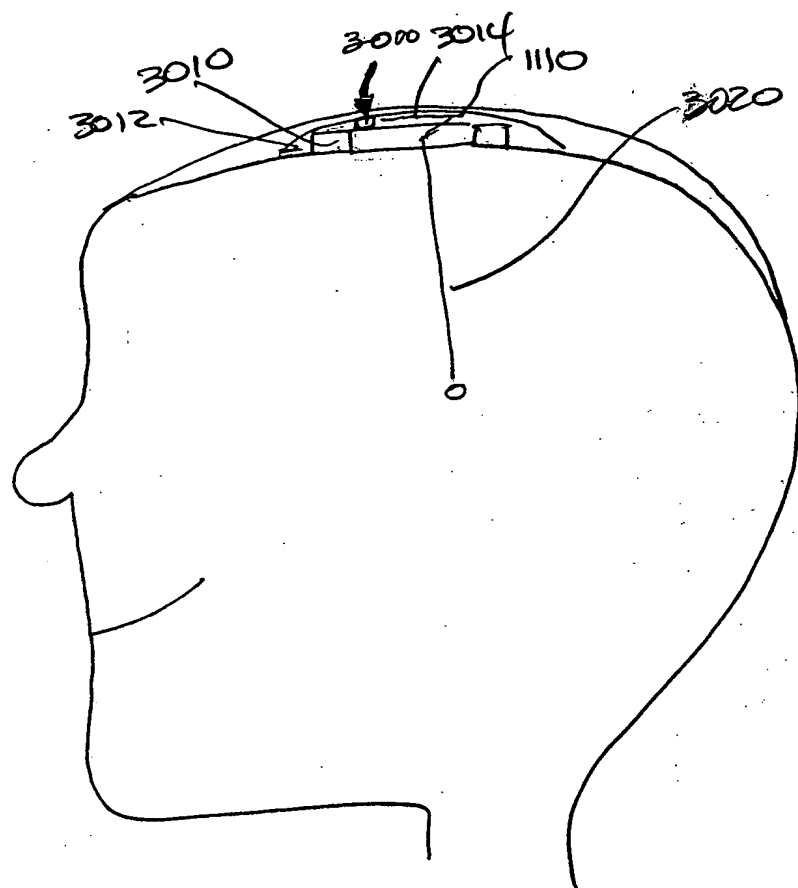


Fig 30

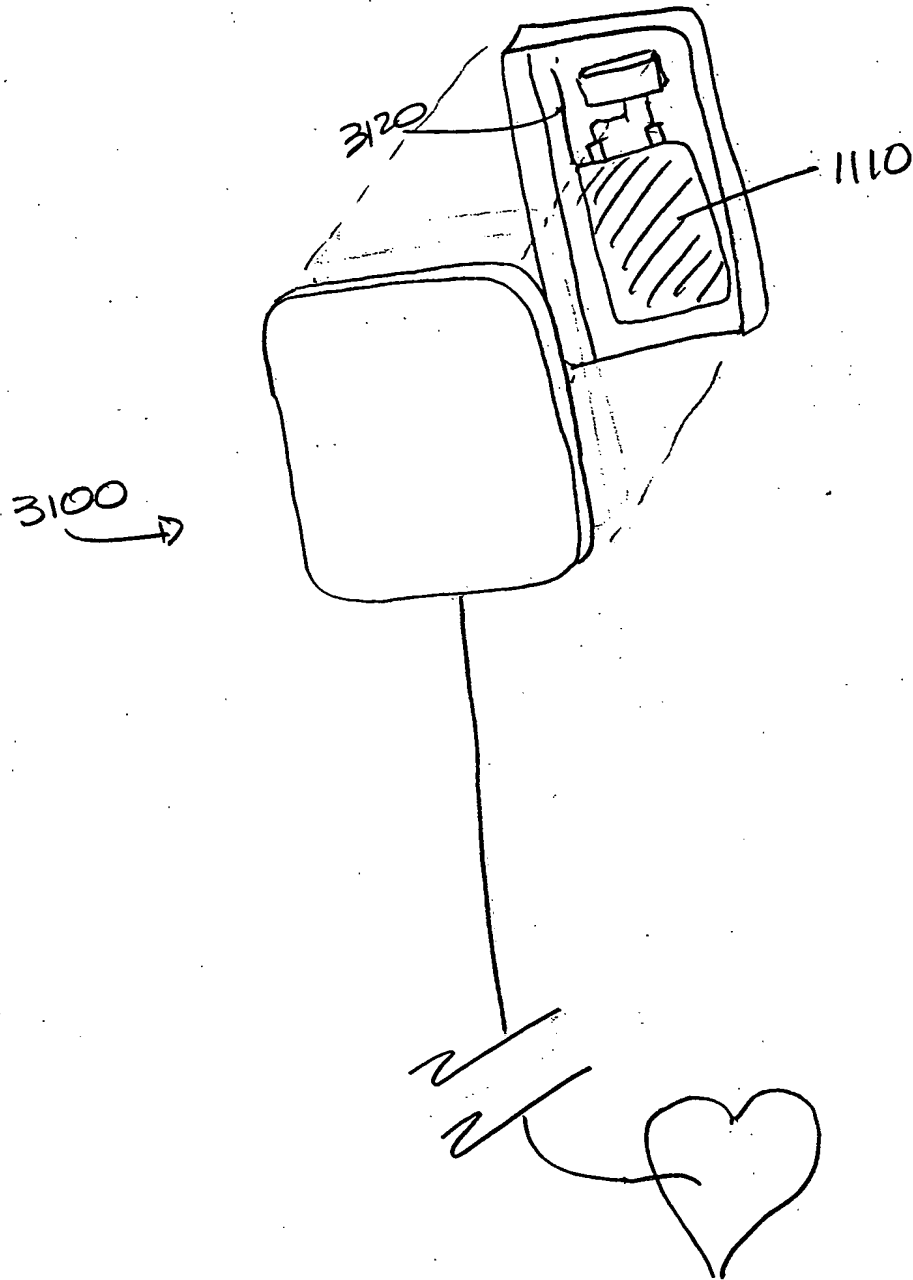


FIG 31A

3101
⚡

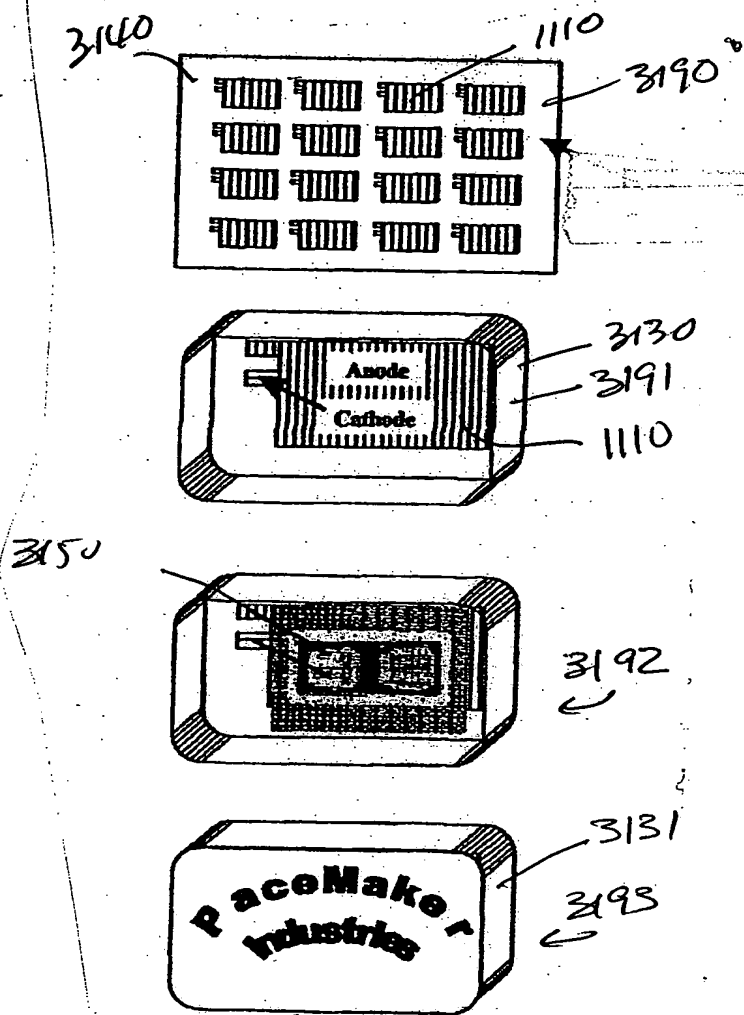


Fig 31 B

FILED OCT 20 2004

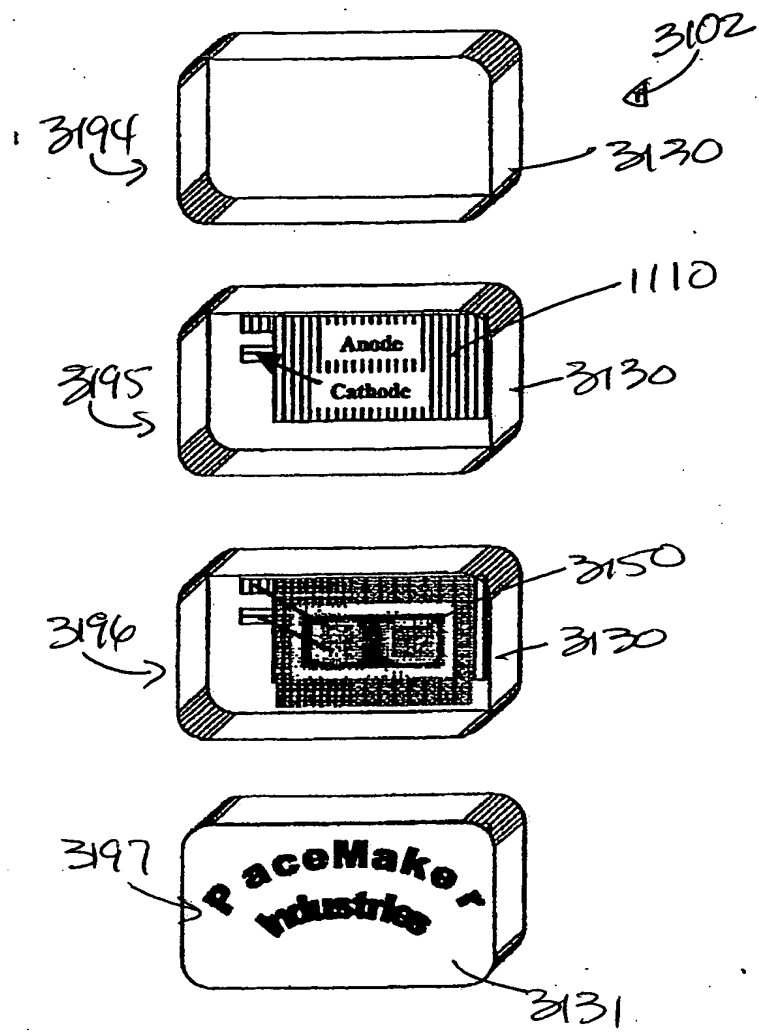


FIG 31C

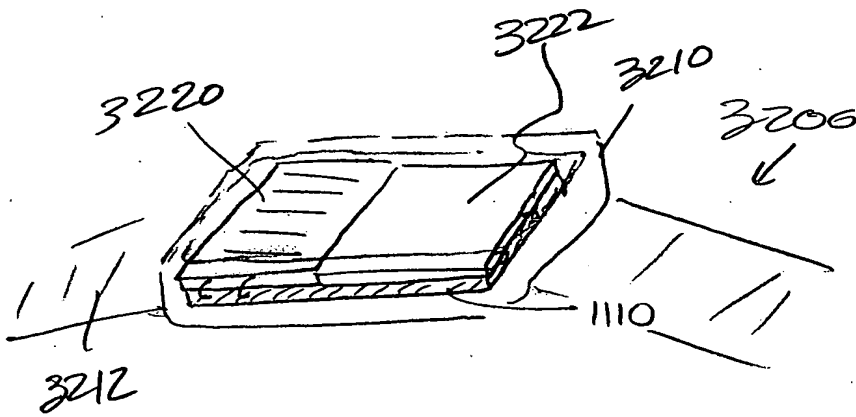


Fig 32 A

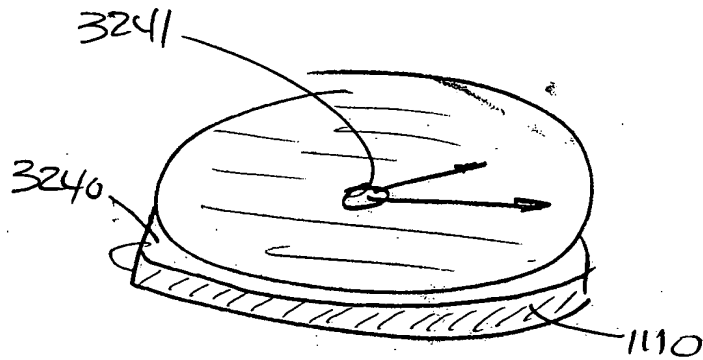


Fig 32 B